CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

1. A system for providing automated access to a plurality of data media in a data storage system, the system comprising:

a drawer configured to receive the plurality of data media;

a mounting system attached to the drawer and adapted to be located within an opening in the data storage system and configured to extend and retract the drawer relative to the opening in the data storage system;

a drive system operationally attached to the mounting system and configured to position the drawer relative to the opening in the data storage system; and

a control system in communication with the drive system and adapted to control the operation of the drive system, the control system configured to receive information associated with a specific position relative to the opening in the data storage system to which the drawer is to be moved and to operate the drive system to position the drawer in the specific position.

2. The system of claim 1, wherein the control system is adapted to receive the information associated with the specific position from a host computer in communication with the data storage system.

3. The system of claim 1, wherein the control system is adapted to receive the information associated with the specific position from a control panel.

4. The system of claim 1, wherein the information associated with the specific position comprises information related to one of the plurality of data media and the control system further comprises logic to determine, based on the information related to one of the plurality of data media, the specific position.

5. The system of claim 1, wherein the mounting system comprises a first guide rail having a first configuration and mounted to the drawer, a second guide rail having the first configuration and mounted to the data storage system, and a third guide rail having a second configuration adapted to engage the first and second guide rails.

6. The system of claim 5, wherein the drive system comprises:

a drive gear; and

a drive motor in communication with the control system and configured to engage the drive gear in a first direction and a second direction such that engaging the drive gear in the first direction extends the drawer relative to the opening in the data storage system and engaging the drive gear in the second direction retracts the drawer relative to the opening in the data storage system.

7. A method for providing automated access to a plurality of data media located in an extendable drawer in an opening in a data storage system, the method comprising the steps of:

receiving information related to a specific position relative to the opening in the data storage system to which the drawer is to be moved; and

positioning the drawer in the specific position relative to the opening in the data storage system.

8. The method of claim 7, wherein the step of positioning the drawer in the specific position relative involves extending the drawer with respect to the opening in the data storage system.

9. The method of claim 7, wherein the drawer is attached to a mounting system comprising a first guide rail having a first configuration and mounted to the drawer, a second guide rail having the first configuration and mounted to the data storage system, and a third guide rail having a second configuration adapted to engage the first and second guide rails.

10. A method for providing automated access to a plurality of data media located in an extendable drawer in an opening in a data storage system, the method comprising the steps of:

receiving information associated with one of the plurality of data media located in the drawer;

based on the information associated with one of the plurality of data media, determining the corresponding predefined position relative to the opening in the data storage system; and

positioning the drawer in the predefined position relative to the opening in the data storage system.

11. The method of claim 10, further comprising the steps of:

locating the plurality of data media in the drawer; and

determining, for each of the plurality of data media located in the drawer, a predefined position relative to the opening in the data storage system to which the drawer is to be moved to provide access to the plurality of data media.

12. The method of claim 10, wherein the drawer is attached to a mounting system comprising a first guide rail having a first configuration and mounted to the drawer, a second guide rail having the first configuration and mounted to the data storage system, and a third guide rail having a second configuration adapted to engage the first and second guide rails.

13. The method of claim 10, wherein the information associated with one of the plurality of data media located in the drawer is received from a control panel associated with the data storage system.

14. The method of claim 10, wherein the step of positioning the drawer in the specific position involves extending the drawer with respect to the opening in the data storage system.